PISCATAQUOG RIVER MANAGEMENT PLAN

IN MEMORY:

James W. Tethers, 1937–1999

This Management Plan is dedicated to the memory of Jim Tethers, Chief Planner for the *Southern New Hampshire Planning Commission.* Jim worked closely with The PRLAC since its inception in 1994, providing guidance and support in the development of this Management Plan.

Jim had been with SNHPC for 29 years, assisting the 13 member communities with technical planning support. His calm demeanor, congenial smile and good humor were great assets in working with government officials and community volunteers. In the early 1980's, several years before the state enacted the Rivers Management and Protection Program, Jim participated in the development of "A Management Plan for the South Branch Piscataquog River".

His wealth of knowledge about the Piscataquog Watershed and the communities along the river was invaluable to this committee. He is deeply missed. His memory can be honored through the support of the ***James W. Tethers Educational Trust,*** established by the SNHPC to help students within the 13 member communities who wish to pursue a career in Planning. We were fortunate to know and work with Jim. He will remain ever present in our thoughts and in our hearts.

Prepared by:

Piscataquog River Local Advisory Committee

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SEPTEMBER - 1999

PISCATAQUOG RIVER LOCAL ADVISORY COMMITTEE

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Ron Johnson, *Vice-Chair* - Manchester
Dick Ludders, *Clerk* - Weare
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Vivian Blondeau & **Charles Freiburger** - Goffstown
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Special Acknowledgements:

- **Southern New Hampshire Planning Commission:** Moni Sharma, *Executive Director*
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For their assistance with the monthly agendas, minutes of meetings and technical support with this Management Plan.

- **Piscataquog Watershed Association:** Gordon Russell, *President*

For their commitment to the Piscataquog River and its watershed. The Nomination Report prepared by the PWA was an invaluable resource in developing this Management Plan.

- **Town Of Weare:** Bessie Myhr, *Town Librarian*

For their obliging accommodation in providing the Committee with a meeting room in the Weare Public Library.

- **Former Committee Members:**

Pierre Bruno, New Boston; Claire Dodge, New Boston; Kathy Lee Luger, Deering; Michael Cunnigham, Manchester

For their contributions to the Committee and assistance in developing this Management Plan.

- **Graphics:**

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Cover illustration from the Town of Weare Conservation Commission Mural by Linda Graham
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1. INTRODUCTION

1.1 Purpose

This Management Plan was developed by the Piscataquog River Local Advisory Committee (PRLAC) in accordance with the guidelines of RSA 483 to create a framework for long-term use and protection of the Piscataquog River. The Management Plan attempts to define a future for the river that respects the legitimate interests of property owners while recognizing that the river is an important community resource. The Committee recommends that each community along the Piscataquog River adopt the Plan into their community Master Plan by whatever approach is appropriate for the community. It is hoped that this Plan will then become the basis for guidance that communities and other organizations (e.g.; school, recreational users, etc.) will use when undertaking any planning that will affect the Piscataquog River or the watershed.

1.2 Background

In 1988, the NH General Court passed the Rivers Management and Protection Act. This was in recognition of the fact that the protection of these shorelands was essential to the integrity of the public waters. The Rivers Management and Protection Program is implemented by RSA 483 which allows any New Hampshire organization or resident to nominate a river for protection. In 1992, the Piscataquog Watershed Association (PWA) submitted the required nomination papers to the state, which approved the incorporation of the North, South, and Middle Branches and the Main Stem.

RSA 483 also calls for the appointment of a local river management advisory committee for all designated rivers. Each municipality along the designated river must have at least one member on the committee. Members are nominated by the local governing body and appointed by the Commissioner of the New Hampshire Department of Environmental Service (DES). The communities which make up the Piscataquog River Local Advisory Committee (PRLAC) are Deering, Francestown, Goffstown, Lyndeborough, Manchester, New Boston, and Weare. The local advisory committees are to have at least seven members, representing a broad range of interests in the vicinity of the designated river.

NEW HAMPSHIRE DESIGNATED RIVERS

Ashuelot River	Exeter River	Piscataquog River
Cold River	Lamprey River	Saco River
Connecticut River	Lower Merrimack River	Swift River
Contoocook – North Branch Rivers	Pemigewasset River	Upper Merrimack River

1.3 Duties of the Local River Advisory Committee

RSA 483 defines four major duties for a local advisory committee. They are:

- To advise the Commissioner, the state advisory committee, and the municipalities through which the river flows on matters pertaining to the management of the river.
- To comment on any project that would alter the resource values and characteristics for which the river was designated.
- To develop and assist in the adoption of a local river corridor management plan.
- To report annually to the state advisory committee and Commissioner on the status of compliance with federal, state, and local regulations, ordinances and plans.

1.4 Content of the Plan

RSA 483 identifies various qualities that can be considered in the designation of a river for protection under the Rivers Management and Protection Act. The PRLAC focused on seven of these in the creation of this Plan, including:

Water Quality - Instream Flow
Streambank Stabilization - Recreation Opportunities
Natural Resources - Scenic Resources
Cultural Resources

For each of these attributes, background information is presented, goals discussed, and a table is provided to summarize key actions and implementation methods required to achieve the stated goals.

The Plan also contains several appendices providing reference material pertaining to fish, mammals, birds and wildflowers of the Piscataquog River Watershed, a matrix of federal state and local regulations pertaining to the river, and a bibliography of community, state and federal reports and references.

It is noted that much of the information contained in the "background" section of each river attribute, has been taken from the nomination papers originally prepared by the Piscataquog Watershed Association (PWA). This non-profit conservation organization was founded in 1970. Its main goal is to protect and preserve the river and its natural habitats. The PWA nominated the Piscataquog River and actively pursued its adoption into the New Hampshire Rivers Management Protection Program.

1.5 Basis for Nomination of the Piscataquog River

The Piscataquog River consists of three branches: South, Middle and North, all of which were accepted into the New Hampshire Rivers Management and Protection Program in July 1993.

Despite its proximity to Manchester, the largest city in New Hampshire, the Piscataquog River is predominantly a quiet stream. Its total length is approximately 65 miles and it is free-flowing for 95.7 percent of that length, a claim few rivers in New England can make. Much of the land along the river is protected and open to the public, providing for multi-recreational and educational use as well as affording excellent water quality.

For nearly 30 years, the Piscataquog Watershed Association, the Society for the Protection of New Hampshire Forests, the New England Forestry Foundation, the Audubon Society of New Hampshire, riverfront towns, state agencies and dozens of private landowners and river stewards have worked to protect the watershed of the Piscataquog River. As a result, over 4,000 acres of land along the river are protected, as well as 8.5 percent of the open space within its watershed. Large tracts of protected land are carefully managed for both timber production and protection of natural habitat.

The Piscataquog is rich in geologic formations, especially glacial deposits. Most notable is an esker train along the South Branch which runs four miles along the river marking the remnants of a stream which once coursed its way through glacial ice. Other significant formations include glacial kettles, a gorge on the Lyndeborough/New Boston town line, and "the plains," a glacial deposit of sand and gravel which may have been the site of New Boston's first settlement. An ever-running natural spring southeast of the Lyndeborough/New Boston town line is yet another geologic highlight of the area.

1.6 Piscataquog River Description Covered by Plan

The portions of the Piscataquog River designated for protection under the Rivers Management and Protection Act are:

North Branch

- As a natural river from the outlet of Deering Lake Dam in Deering, 6.25 miles to the Abijah Bridge in Weare.
- As a rural river from the outlet of Lake Horace Dam in Weare, 8 miles to the Everett Dam flowage in Weare. Additionally, from the outlet of the Everett Dam in Weare, 8 miles to the river's convergence point with the South Branch.

Middle Branch

- As a natural river from the natural outlet of Haunted Lake in Francestown to the inlet of the upper cranberry bog at the New Boston town line, approximately 11.5 miles to its mouth in New Boston.

South Branch

- As a natural river from the outlet of Pleasant Pond in Francestown, 11.5 miles to New Hampshire Route 13 in New Boston.
- As a rural river from New Hampshire Route 13 in New Boston, 7 miles to the confluence with the North Branch.
- As a rural-community river from the confluence with the North Branch, 1.7 miles to New Hampshire Route 114 in Goffstown.
- As a community river from New Hampshire Route 114 in Goffstown, one mile to Gregg Dam in Goffstown.
- As a rural-community river from Gregg Dam in Goffstown, 6.9 miles to the river's mouth at Bass Island in Manchester.

The specific criteria for river classification (i.e.; natural, rural, rural-community, or community) are provided in **RSA 483:7-a**. They are summarized here for the information of the reader. (Also see table 1 for more detail)

- **Natural Rivers:** Free flowing rivers or segments characterized by the high quality of natural and scenic resources; shoreline primarily in natural vegetation; development limited to forest management and scattered housing; five mile minimum length; existing water quality shall not be lower than Class B (suitable for swimming and fishing - suitable for drinking with treatment.)

- **Rural Rivers:** Rivers or segments adjacent to lands partially or predominantly used for agriculture, forest management, dispersed residential development; some instream structures may exist; three mile minimum length; existing water quality shall be at least Class B or have the potential for restoration to Class B.

- **Rural-Community Rivers:** Rivers or segments which flow through developed or populated areas; have mixed land use reflecting some combination of open space, agriculture, residential, commercial and industrial land uses; are readily accessible by road or railroad; may include impoundments or diversions; three mile minimum length; existing water quality shall be Class B or have the potential for restoration to Class B.

- **Community Rivers:** Rivers or segments which flow through developed or populated areas; mixed land use reflecting some combination of open space, agriculture, residential, commercial and industrial land uses; are readily accessible by road or railroad; may include impoundments or diversions or potential sites for new impoundments or diversions for hydropower, flood control or water supply purposes; may include urban centers of municipalities; one mile minimum length; existing water quality shall be Class B or have the potential for restoration to Class B.

1.7 Piscataquog River Base Line Data

The Piscataquog Watershed Association (PWA) along with the New Hampshire Department of Environmental Services (NHDES) both continue to monitor the Piscataquog River working with volunteers from schools and various organizations. This data provides valuable information regarding the environmental quality of the river and watershed. While the importance of this data is recognized, it is also understood to be constantly changing. Therefore, it is recommended that individuals access the Watershed Management Bureau of the Water Division of the NHDES at their web-site, www.des.state.nh.us/rivers in order to obtain the most up to date information.

TABLE 1 - RIVER CLASSIFICATION & REGULATIONS

ACTIVITIES ALLOWED	RIVER CLASSIFICATIONS			
	Natural	**Rural**	**Rural-Community**	**Community**
Dams and Encroachments				
Construction of New Dams	No	No	No	Yes
Reconstruction of Breached Dams	No	Yes (within six years)	Yes (within six years)	Yes
Channel Alterations	No (excluding repairs)	Yes (w/conditions)	Yes (w/conditions)	Yes (w/conditions)
Water Quality/ Water Quantity				
Water Quality	Class A or B	Class B	Class B	Class B
Interbasin Transfers	No	No	No	No
Protected Instream Flow	Yes	Yes	Yes	Yes
Waste Disposal				
New Landfills	No (within 1/4 mile)	No (within 500-year floodplain)	No (within 500-year floodplain)	No (within 500-year floodplain)
New Hazardous Waste Facilities	No (within 1/4 mile)	N/A	N/A	N/A
Other New Solid Waste Facilities	No (within 250 feet)	No (within 250 feet)	No (within 250 feet)	No (within 250 feet)
Fertilizer				
Manure, Lime, and Wood Ash	Yes	Yes	Yes	Yes
Sludge and Septage	No within 250 feet (with limited exceptions)	No within 250 feet (with limited exceptions)	No within 250 feet (with limited exceptions)	No within 250 feet (with limited exceptions)
Recreation Use				
Motorized Watercraft	No	Yes ("headway" speed only within 150 feet of shoreline)	Yes ("headway" speed only within 150 feet of shoreline)	Yes ("headway" speed only within 150 feet of shoreline)

The following sections present information and recommendations dealing with each of the river attributes covered by this plan.

2. WATER QUALITY

2.1 Background

The waters of the Piscataquog River are of high quality. Maintenance of this quality is fundamental to the value of the river and should be a high priority of the communities along the 65 miles of the river corridor.

The head waters of each of the branches is a lake; Deering Reservoir (North Branch), Pleasant Pond (South Branch), Haunted Lake (Middle Branch). These lakes and the entire length of the river are fed by numerous streams. (See Map 1)

The Piscataquog River's water quality is directly affected by the quality of each of these sources. Continuous monitoring of water quality, strict control of point and non-point pollution sources and adequate planning for dealing with hazardous waste spills that can reach the Piscataquog River, are key objectives to insuring preservation of water quality.

2.2 Goals

- To identify and minimize present pollution problems.
- To prevent future degradation of water quality from both point source and non-point source pollution.

2.3 Key Actions to Achieve these Goals

TABLE 2 - WATER QUALITY

KEY ACTIONS	IMPLEMENTATION
Establish additional water quality monitoring stations to supplement those already being monitored by the PWA and DES for the purpose of bracketing potential sources of water pollution, increasing the baseline of data, and providing additional educational opportunities.	Local area schools such as St. Anselm, UNH-Manchester, Notre Dame, and others to undertake additional monitoring in coordination with the PWA. PRLAC to work with PWA, DES, and Volunteer River Assessment Program (VRAP) to coordinate and assist existing volunteer monitoring programs
Encourage communities to continue to follow the New Hampshire Office of Emergency Management Guidelines for hazardous response and work with the surrounding communities on a regional plan to minimize the impact of any spills that could impact the Piscataquog River.	Local fire departments along the river corridor to continue coordination and training in dealing with hazardous waste spills that may enter the Piscataquog River. Local fire departments continue to identify opportunities to improve hazardous waste incident response to protect the river.

TABLE 2 - WATER QUALITY	
KEY ACTIONS	**IMPLEMENTATION**
Encourage communities containing portions of the Piscataquog River not covered by the Comprehensive Shoreland Protection Act (CSPA), to consider adopting Local Shoreland protection ordinances. These regulations should be equal to or more stringent than the State standards and be based on the State model ordinance.	PRLAC members to contact conservation commissions, planning boards, town officials and local environmental organizations to make them aware of the benefits of the ordinance. PRLAC to set up presentations on the CSPA and model ordinances by DES and the Office of State Planning (OSP).
Eliminate Combined Sewer Overflow (CSO) on the Piscataquog River in the urbanized areas.	Manchester Environmental Protection Division (EPD) to continue work towards separation of storm water and sewer. EPA and DES to provide assistance and support with this Key Action. Communities to identify ways of treating stormwater runoff.
Reduce or eliminate impact from leach fields, non-point source pollution and land application of sludge and septage.	PRLAC and conservation commissions to educate town officials and property owners regarding the effects of non-point source pollution. Local health officials to continue enforcing septic system rules. Local road agents and highway officials to pursue alternatives for deicing of roadways in the vicinity of the river
Increase public awareness through education and training regarding the benefits of high water quality.	PRLAC and PWA to encourage area schools and colleges to incorporate the study of water quality in their biology curricula. PRLAC and PWA to host forums and speakers to increase awareness of the importance of water quality.

MAP 1
PISCATAQUOG RIVER WATERSHED

HENNIKER
HOPKINTON
DUNBARTON
DEERING
WEARE
BENNINGTON
FRANCESTOWN
GOFFSTOWN
NEW BOSTON
MANCHESTER
BEDFORD
GREENFIELD
LYNDEBOROUGH
MONT VERNON

Weare Reservoir Dam (Horace Lake)
Dudley Brook
Weare Reservoir
Everett Lake
Everett Dam
Mt William Pond
Gorham Pond
Deering Reservoir
Perkins Pond
North Branch Piscataquog River
Daniels Lake
Riverdale Dam
Hadley Falls Dam
Glen Lake
Main Stem Piscataquog River
Pleasant Pond
Shattuck Pond
South Branch Piscataquog River
Middle Branch Piscataquog River
Gregg Dam
Dodge Pond
Kelly Falls Dam
Bamford Lake
S. Branch Piscataquog River
Bailey Pond
MERRIMACK RIVER

Legend

- Water Quality Monitoring Site
- Dam Locations
- Major Highway
- Secondary Highway
- Road or Street
- Piscataquog River
- Water Bodies
- 4th Order or Greater

River Classification

- Community
- Natural
- Rural
- Rural - Community
- Political Boundary
- Watershed Boundary

Note:

The Piscataquog River Watershed encompasses 220 square miles in 14 communities

The Piscataquog River Corridor lies within 7 communities and includes the River and lands 1/4 mile on each side of the River, measured from the normal high water mark.

Base features are from USGS 1:24000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Some new road features added by SNHPC with GPS.

"Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center (CRSC), under contract to the Office of State Planning (OSP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. Neither OSP nor CSRC make any claim as to the validity or reliability or to any implied uses of these data. "

Map produced June, 1998. SNHPC

1 0 1 2 3 4 Miles

N W E S

3. INSTREAM FLOW

3.1 Background

The Rivers Management and Protection Act RSA 483 establishes a protected instream flow for each designated river. RSA 483:9-c gives the State the authority and responsibility to maintain a certain quality and quantity of water in the designated rivers for the support of instream public uses. The Act identifies these permitted instream public uses and authorizes the Department of Environmental Services (DES) to adopt rules for their protection. The Department has prepared draft Instream Flow Rules to implement this authority and carry out this responsibility.

3.2 Goals

- To maintain water for instream public uses including: navigation, recreation, fishing, conservation, maintenance and enhancement of aquatic life, fish and wildlife habitat, protection of water quality and public health, pollution abatement, aesthetic beauty, and hydropower production.
- To create an awareness of the need for Instream Flow Rules.
- To encourage water conservation.

3.3 Key Actions to Achieve these Goals

TABLE 3 - INSTREAM FLOW	
KEY ACTIONS	**IMPLEMENTATION**
Adopt policies and regulations by the State to maintain adequate water flow.	PRLAC to work with other LACs and interested parties to encourage DES to initiate the formal rule making process. DES to finalize and submit proposed rules to the Joint Legal Committee on Administrative Rules (JLCAR). DES to adopt and implement Instream Flow Rules.
Educate community officials, businesses, and private water users about the Instream Flow Rules.	Conservation Commissions to verify that significant users (> 20,000 gal/day) are registered with the State. (See Matrix reference for the source of these rules.) DES, PRLAC, and local conservation commissions to host a forum on the rules or policies when adopted.
Educate public on the finite nature of our water resources.	Include this topic as part of a forum on Instream Flow Rules.
Encourage water conservation.	City and or town officials to encourage water conservation when reviewing development along the river corridor. Towns to develop and update regularly their local water resource plans.

4. STREAMBANK STABILIZATION

4.1 Background

A river is a dynamic system, constantly though subtly changing its course within its corridor. This cycle of erosion and deposition and gradual movement of the river channel is a natural process and inherent in the dynamics of the Piscataquog River. Throughout history, human communities have built structures along rivers. When the natural dynamics of the river threaten these structures, it is typical that landowners want to protect their investment by undertaking construction to control the river and prevent erosion of the stream banks. Achieving a logical balance between the force of the river and the built environment should be the objective of streambank stabilization efforts.

4.2 Goals

- To recognize that the power of the river flow cannot be reduced with a streambank stabilization project.
- To develop guidelines which consider the effects of each streambank stabilization project.
- To avoid projects which are detrimental to the value of the river to fish and to wildlife by altering the streambed in a way that destroys habitat.
- To preserve the natural beauty of the river.

4.3 Key Actions to Achieve these Goals

TABLE 4 - STREAMBANK STABILIZATION	
KEY ACTIONS	**IMPLEMENTATION**
Establish regulations for streambank stabilization.	DES to develop fact sheets and policies for streambank stabilization. Community planning boards to adopt regulations that consider the effects of development projects within the river corridor. Community conservation commissions to establish contact with the U.S. Army Corps of Engineers for information resources and assistance.
Minimize the erosion and degradation of streambanks caused by human activity.	Planning boards adopt and enforce setback requirements consistent with the Comprehensive Shoreland Protection Act (CSPA) for dealing with projects along the river corridor. DPW and road agents to use best management practices for culvert and road maintenance. Conservation commissions to ensure that appropriate erosion and sediment controls are installed before and maintained during, and after construction.
Limit stabilization projects to places where erosion is caused by human activity or threatens a road or structure.	PRLAC to distribute educational information such as Living with the River, published by the Connecticut River Joint Commission. PRLAC to review permit applications and make appropriate recommendations. Conservation commissions to encourage the planting of riparian species along the river corridor.
Encourage the use of native vegetation to stabilize streambanks, where possible.	PRLAC to identify sites and owners for demonstration projects. PRLAC and local conservation commissions to seek grants to help provide the resources to accomplish this key action (e.g.; Natural Resource Conservation Service District or DES.)
Promote projects that will eliminate non-native invasive species along the river corridor.	Conservation commissions to pursue grants for funding to assist with the elimination of non-native invasive species. Conservation commissions to pursue volunteers for work projects to eliminate non-native invasive species.

5. RECREATION OPPORTUNITIES

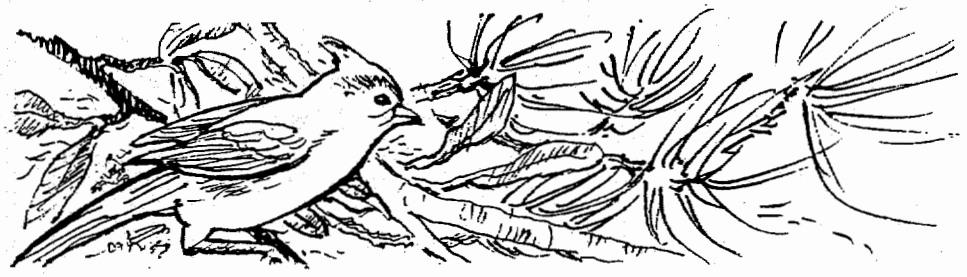
5.1 Background

History does not record the earliest time when the Piscataquog River was used for recreation, however the river has served a wide range of uses over the years. In the early 1900's, the Boston Chapter of the Appalachian Mountain Club used a section of the river in New Boston for paddling instruction and canoe races. At about the same time, property near the river in Manchester and Goffstown became desirable for its recreational value. Summer camp colonies developed along the river for nearby city dwellers, offering a peaceful place to relax and enjoy nature.

The river has always attracted diverse interests reliant upon the flowing waters. The tranquillity of the river attracts some people, providing them a visit with nature, or a quiet place to read or relax beside perpetually flowing water. When the river is swollen and the water is far from tranquil, people come with canoes, kayaks and other means of flotation looking for adventure. The river calls anglers and those that fly-fish to waters teeming with life. For some, the river simply provides spectacular scenery in their daily travels. The river offers each person a unique experience, and the recreational opportunities afforded by the river are limited only by one's imagination. (See Map 2)

The Piscataquog River is home to hundreds of boating enthusiasts. Whether on the quiet, more private sections or on the lakes, boaters can enjoy three seasons of rural New Hampshire at its finest. The lakes provide space for water skiing as well as other recreational endeavors favored by the boating public. The numerous access points along the river often include not only launch sites and parking, but bathhouses, restrooms, and picnic areas as well. Some of this access is offered free of charge while other sites charge various fees.

The river corridor is a great resource for plenty of recreational pursuits. Trails along the Piscataquog provide opportunities for hiking, biking and horseback riding and during the winter, people can enjoy cross-country skiing, snowshoeing and snowmobiling in some designated areas. Abandoned railroad lines along the river corridor are ideal for conversion into recreational pathways. Several communities including Manchester, Goffstown and New Boston are pursuing these railroad corridors.



5.2 Goals

- To provide adequate access points in each community from which the public can enjoy the river.
- To establish access points in appropriate locations using sound conservation and design practices.
- To prevent overuse and decline of public access areas.
- To alleviate the occurrence of trespass on private property by those seeking to use a public resource.

5.3 Key Actions to Achieve these Goals

TABLE 5 - RECREATION OPPORTUNITIES	
KEY ACTIONS	**IMPLEMENTATION**
Encourage maintenance of existing public access points.	Conservation organizations to adopt public access areas and portions of the river. Communities to encourage a "carry in-carry out" policy and/or provide trash receptacles at locations where regular collection can occur.
Develop guidelines for appropriate use of public areas.	Communities to assign policing, sign posting, trash removal and maintenance to the appropriate municipal agencies. Communities to avoid development of access points on undeveloped areas of the river, sections designated as "natural" or areas that can be considered "dangerous" for access.
Evaluate the need for additional public access areas and identify potential locations.	Communities to identify current public access points and determine need for additional access. Communities to determine feasibility of obtaining easements on lands currently used for informal access to the river.
Create travelways adjacent to the river.	Communities to develop recreational paths along the river corridor in a manner which will not adversely affect the natural environment or wildlife corridors. Former railroad rights-of-way should be utilized where possible. Communities to consider limiting motorized vehicles on travelways and public areas along the river corridor .

MAP 2
PISCATAQUOG RIVER CORRIDOR
Open Space

Legend

- Public Access
- Major Highway
- Secondary Highway
- Road or Street
- Political Boundary
- Watershed Boundary
- Piscataquog River
- Water Bodies
- Publicly Owned Lands w/in River Corridor
- Privately Conserved Lands w/in River Corridor
- Other Protected Lands w/in Watershed

HENNIKER
HOPKINTON
DUNBARTON
DEERING
WEARE
BENNINGTON
FRANCESTOWN
GOFFSTOWN
NEW BOSTON
MANCHESTER
BEDFORD
GREENFIELD
LYNDEBOROUGH
MONT VERNON

Dudley Pond
Dudley Brook
Weare Reservoir
Mt William Pond
Gorham Pond
Perkins Pond
Daniels Lake
Shattuck Pond
Pleasant Pond
Dodge Pond
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MERRIMACK RIVER

Base features are from USGS 1:24000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Some new road features added by SNHPC with GPS.

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Map produced June 1998. Revised October 1998. SNHPC

1 0 1 2 3 4 Miles

6. NATURAL RESOURCES

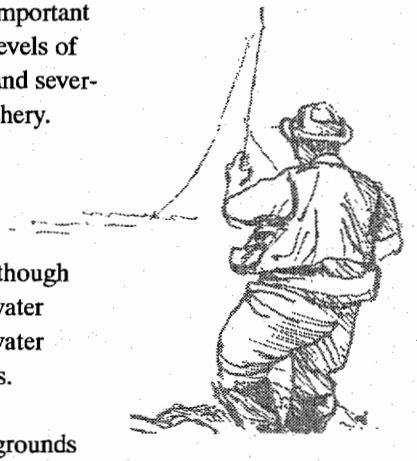
6.1 Background

The Piscataquog River and surrounding watershed support a diverse habitat for a wide variety of wildlife and plant species thanks to the extensive natural and protected lands along the river. (See Map 3) A number of these species of plants and animals are significant and have been identified as threatened, endangered, or sensitive, and require special protection. An inventory of existing species located within the corridor has been assembled from information provided by The New Hampshire Fish and Game Department, The Audubon Society of New Hampshire, The New Hampshire Natural Heritage Program, and the Piscataquog Watershed Association (PWA). This information is included in Appendices 9.1.1 through 9.1.4 of this document. Every effort should be made to protect and enhance the habitat for these species as well as the existing native species located in the watershed.

In the early days of European settlement in the region, mature stands of large white pine and red oak growing in the Piscataquog River watershed drew attention to the area. Settlers arrived to harvest the massive trees, some of which were reserved by the King of England for British Navy ship masts. Today, this virgin forest is non existent and the river corridor sustains second and third growth vegetation.

Several bird species on the state endangered list have been observed in the Piscataquog River Watershed, including the pied-billed grebe and peregrine falcon. Those on the threatened species list include the common loon, osprey, northern harrier, Cooper's hawk, and the common nighthawk. Among the multitude of mammals living in the watershed, several species of reptiles and amphibians of special concern have been observed. They are the eastern hognose snake, Blanding's turtle, eastern box turtle, and spotted turtle. The river also supports some of the world's finest populations of brook floater mussel which is listed by the state as endangered.

The Piscataquog River is a relatively steep gradient stream with a predominantly cobble and gravel substrate, dominated by riffle/pool habitat. The three branches of the river, together with its tributaries and lakes, provide both novice and knowledgeable anglers with fine and rewarding fishing. It is a favored fishery of the Manchester Chapter of Trout Unlimited, which has selected the river for its "Adopt-A-River Program." The Piscataquog River is considered to be one of the two most important salmon nursery tributaries in southern New Hampshire. The river yields higher production levels of juvenile parr, on average, than any other site. And, with the many diversified river bottoms and several impoundments, the river supports a large warm water fishery as well as a notable trout fishery.



6.1.1 Fish

The Piscataquog River and its tributaries are home to at least 24 different species of fish. Although the river is managed as a cold-water fishery, it also supports a healthy population of warm water species. The slower moving impounded sections of the river contain the majority of warm water species while those areas having steeper gradients contain the majority of cold-water species.

As noted, the Piscataquog River is considered to be one of the two most important nursery grounds for the anadromous Atlantic salmon, which are stocked as fry into both the North and South branches. The Atlantic salmon lives as an adult at sea but returns to freshwater rivers and small streams to spawn. The young Atlantic salmon remain in fresh water for one or more years, then descend to the sea to feed and grow. After spending a year or more at sea they return to fresh water to spawn.

Once the anadromous fish return to the Merrimack River in sufficient numbers, it will be necessary to begin construction of additional fish ladders and downstream by-passes along the Piscataquog River. According to the Strategic Plan for the Restoration of Atlantic Salmon to the Merrimack River prepared by U.S. Fish & Wildlife Service, an upstream passage will need to be constructed at Kelly Falls Dam in Manchester, and downstream by-passes are called for at the Gregg and Hadley Falls dams in Goffstown. These projects will help to encourage the restoration of the anadromous fish to the watershed.

6.1.2 Mammals

The Piscataquog River and its corridor provide a variety of habitat for a large variety of species of native animals including several endangered, threatened and sensitive species. Appendix 9.1.2 provides a list of all species known and expected to occur within the river corridor.

6.1.3 Birds

Because of the extensive natural and protected lands along the river, the Piscataquog River Watershed supports diverse habitat for a wide variety of birds. Bird species observed in the Piscataquog Watershed on the state endangered list include the pied-billed grebe and the peregrine falcon. Those on the threatened list include the common loon, osprey, northern harrier, Cooper's hawk, and the common nighthawk. A list of bird species found within the watershed is provided in Appendix 9.1.3.

6.1.4 Wildflowers

Wildflowers deserving special protection that are now surviving within the Piscataquog River Watershed include the small spike-thrush, gall-of-the-earth, one-sided rush, piled-up sedge, and slender crabgrass. A particularly attractive plant species found in the watershed is the small whorled begonia. The largest-known population of this perennial wildflower is found in central New Hampshire and Maine. It was given federal listing as endangered in 1982, but habitat protection efforts have allowed the species to be reclassified as threatened. Biologists hope that with continued landowner awareness and concern the plant will survive. See Appendix 9.1.4, for a listing of the wildflowers of the watershed.

Also of note is a large ironwood (Carpinus caroliniana) community found along the banks of Peacock Brook and at its confluence with the Middle Branch of the Piscataquog River. This tree community is unusual in that this species does not normally cluster in such a massive group. Numerous wildlife species including turkey and ruffed grouse are attracted to the area for the nuts that these trees produce.

6.2 Goals

- To preserve and maintain the natural resources of the Piscataquog River Watershed for present and future generations of both humans and wildlife.
- To protect the threatened and endangered species within the watershed.
- To encourage the natural flow of the river for wildlife habitats and fish migration.
- To support educational initiatives and encourage public awareness for the natural resources of the watershed.

6.3 Key Actions to Achieve these Goals

TABLE 6 - NATURAL RESOURCES	
KEY ACTIONS	**IMPLEMENTATION**
Identify, protect, and enhance important spawning and rearing habitat within the corridor.	PRLAC to work with local conservation commissions, colleges and schools, environmental organizations, and federal and state agencies to identify important natural resources within the river corridor.
Identify and prioritize riparian and aquatic habitat areas impacted by past or ongoing disturbance, and explore opportunities for restoration.	PRLAC to encourage communities to seek grants from federal, state and private organizations to provide funding for restoration efforts.
Protect threatened, endangered, sensitive and native species.	Local officials (conservation commissions and planning boards) to use their authority for protecting these areas through the review of wetland permits, forest application, site plans, and intent to cut permits.
Promote stewardship of the natural resources within the river corridor.	PRLAC to work with local conservation commissions, colleges and schools, environmental organizations and federal and state agencies to identify important natural resources within the river corridor.
Maintain adequate flow conditions to support and enhance current resident fish and aquatic resources, and anadromous fish habitat.	PRLAC and PWA to seek expert review of the proposed protected flow when the Instream Flow Rules are developed by DES. DES to enforce the protected flow once it's established.
Sponsor and promote workshops to educate the public on federal, state and local regulations as they impact the river corridor	PRLAC, PWA, and local conservation commissions to work together on public support.
Promote land conservation within the watershed to enhance the natural resources of the river.	PRLAC to work with the PWA and Community conservation commissions to identify and help protect properties that are vital to the quality of the watershed.

MAP 3
PISCATAQUOG RIVER WATERSHED
Natural Resources

HENNIKER
HOPKINTON
DUNBARTON
DEERING
WEARE
BENNINGTON
FRANCESTOWN
NEW BOSTON
GOFFSTOWN
MANCHESTER
BEDFORD
GREENFIELD
LYNDEBOROUGH
MONT VERNON

Dudley Pond
Dudley Brook
Weare Reservoir
Perkins Pond
Mt William Pond
Gorham Pond
Pierce Lake
Daniels Lake
Glen Lake
Shattuck Pond
Pleasant Pond
Dodge Pond
Hunting Lake
Bailey Pond
PISCATAQUOG RIVER
NORTH BRANCH
MIDDLE BRANCH
SOUTH BRANCH
MERRIMACK RIVER

Legend
- Major Highway
- Secondary Highway
- Road or Street
- Water Bodies
- Piscataquog River
- Political Boundary
- Watershed Boundary
- Significant Plant Communities w/in Watershed
- Significant Animal Communities w/in Watershed
- Aquifers
- Hydric A Soils (Very poorly drained)
- Hydric B Soils (Poorly drained)

Soils information is unavailable for Dunberton, Henniker and Hopkinton.

Note: Data on Significant Plant and Animal Communities was obtained from the State of New Hampshire Natural Heritage Inventory.

Base features are from USGS 1:24000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Some new road features added by SNHPC with GPS.

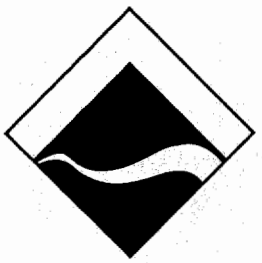
"Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center (CRSC), under contract to the Office of State Planning (OSP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. Neither OSP nor CSRC make any claim as to the validity or reliability or to any implied uses of these data. "

Map produced June, 1998. SNHPC

1 0 1 2 3 4 Miles

N W E S

7. SCENIC RESOURCES



7.1 Background

The predominately rural nature of the landscape through which the Piscataquog River flows provides a wealth of natural scenic features. Preservation of these sites and identification of additional sites are the priority goals here. A particular focus should be the acquisition of abandoned railroad rights-of-way along the river. The PWA has already secured some of these areas in New Boston, while Manchester and Goffstown are currently pursuing acquisition of the corridors along the Piscataquog River in their respective communities.

7.2 Goals

- To preserve existing features and areas within the watershed recognized as scenic.
- To identify and protect additional scenic features in the watershed.

7.3 Key Actions to Achieve these Goals

TABLE 7 - SCENIC RESOURCES

KEY ACTIONS	IMPLEMENTATION
Document existing scenic features in each community.	PRLAC to work with each community to develop an inventory of existing features to be protected. Those listed in the nomination papers prepared by the PWA shall be included at the outset.
Identify new scenic features in each community.	PRLAC to work with each community to develop an inventory of new features to be protected. PRLAC to encourage communities and Regional Planning Commissions to research the status of abandoned roads and rail rights-of-way along the river for public acquisition.
Develop regulations that would help to preserve scenic features.	Encourage local communities to adopt and enforce the provisions of the Comprehensive Shoreland Protection Act particularly as they relate to setbacks and buffers. Encourage the adoption of local ordinances in each town restricting the placement of signs along the river corridor.

8. CULTURAL RESOURCES

8.1 Background

The Piscataquog River Valley was one of the first areas to be developed when this region of New Hampshire was settled. For decades, saw and power mills and other mills for varied uses relied upon the river for their operations. The river valley also supported other factories, farming and forestry.

The Piscataquog River provided essential resources for early inhabitants. In the late 1700s and into the 1800s, its primary use was as a source of power for the numerous mills and shops (See Map 4). A site along the Piscataquog River was once home to the first shoe factory in the nation, which produced nearly 23,000 pairs of boots in its first year.

Francestown, Deering, Weare, and New Boston still contain many reminders of their early history in the ruins of the water-powered mills along the river's banks. The lower segment of the Piscataquog River was an important link in the transportation of cargo around Manchester. Dam locks were built at the river's mouth in 1818 to facilitate the passage of boats to and from the Merrimack River.

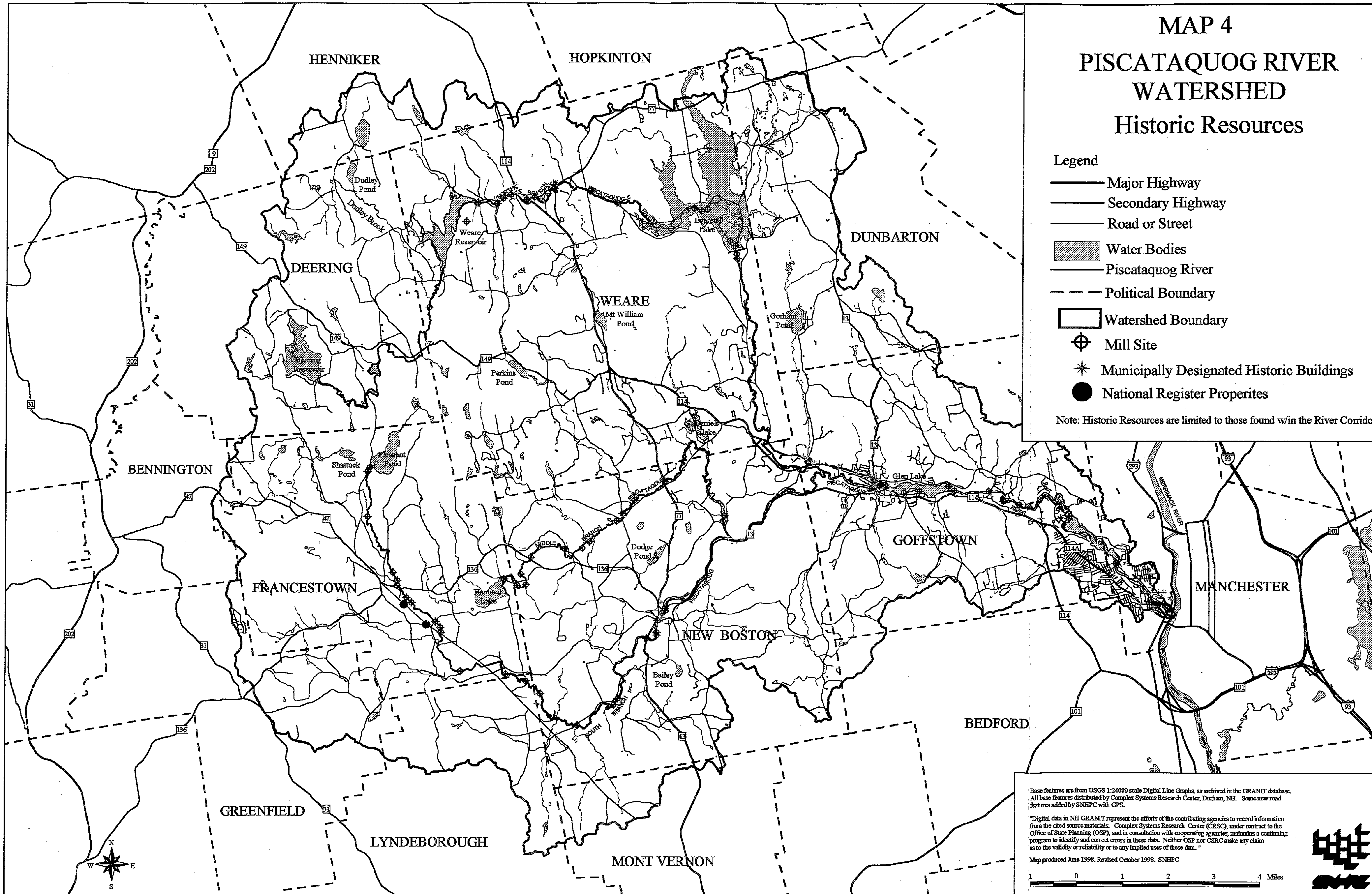
Records of these river-centered activities abound in local printed and verbal histories. (See *A Timetable of History* by Terry Knowles, Weare Historical Society; *New Boston's Mills and Factories* by Charles and Rena Davis, New Boston Historical Society; and *History of Manchester, Derryfield 1751-1810*, Chandler E. Potter.)

8.2 Goals

- To protect the cultural value of the Piscataquog River and adjacent corridor by identifying key resources.
- To protect and preserve cultural resources along the Piscataquog River.

8.3 Key Actions to Achieve these Goals

TABLE 8 - CULTURAL RESOURCES	
KEY ACTIONS	**IMPLEMENTATION**
Encourage communities to inventory known sites of historic and cultural significance.	Communities to use local commissions and organizations to help identify sites.
Encourage written agreements with landowners to protect known sites on a voluntary basis.	Local historical societies to work with the New Hampshire Division of Historic Resources to identify and contact interested landowners. Sites on public land should be protected through the appropriate agency.
PRLAC review all permit applications and comment on any possible impacts on cultural resources.	NH Rivers Coordinator should ensure that all permit applications reach the PRLAC in a timely fashion.


MAP 4
PISCATAQUOG RIVER WATERSHED
Historic Resources
Legend
Major Highway
Secondary Highway
Road or Street
Water Bodies
Piscataquog River
Political Boundary
Watershed Boundary
Mill Site
Municipally Designated Historic Buildings
National Register Properites
Note: Historic Resources are limited to those found w/in the River Corridor.
HENNIKER
HOPKINTON
DUNBARTON
DEERING
WEARE
BENNINGTON
FRANCESTOWN
GOFFSTOWN
MANCHESTER
NEW BOSTON
BEDFORD
GREENFIELD
LYNDEBOROUGH
MONT VERNON
Dudley Pond
Dudley Brook
Weare Reservoir
Deering Reservoir
Mt William Pond
Gorham Pond
Perkins Pond
Daniels Lake
Shattuck Pond
Pleasant Pond
Glen Lake
Dodge Pond
Haunted Lake
Bailey Pond
Everett Lake
PISCATAQUOG RIVER
NORTH BRANCH
MIDDLE BRANCH
SOUTH BRANCH
MERRIMACK RIVER
9
202
149
114
77
13
31
47
136
114A
101
293
93
N
S
E
W
Base features are from USGS 1:24000 scale Digital Line Graphs, as archived in the GRANIT database. All base features distributed by Complex Systems Research Center, Durham, NH. Some new road features added by SNHPC with GPS.
"Digital data in NH GRANIT represent the efforts of the contributing agencies to record information from the cited source materials. Complex Systems Research Center (CRSC), under contract to the Office of State Planning (OSP), and in consultation with cooperating agencies, maintains a continuing program to identify and correct errors in these data. Neither OSP nor CSRC make any claim as to the validity or reliability or to any implied uses of these data."
Map produced June 1998. Revised October 1998. SNHPC
1 0 1 2 3 4 Miles

9. INFORMATION AND RESOURCES

Appendices

9.1.1 Fish of the Piscataquog River

9.1.2 Mammals of the Piscataquog River Watershed

9.1.3 Birds of the Piscataquog River Watershed

9.1.4 Wildflowers of the Piscataquog River Watershed

9.2 Matrix of Existing Regulations

9.3 Bibliography of Community, State and Federal References

9.4 Source List of Community, State, Federal and Private Organizations

APPENDIX 9.1.1

FISH OF THE PISCATAQUOG RIVER

Alewife
American eel
Atlantic Salmon
Blacknose dace
Bluegill
Brook trout
Brown trout
Brown bullhead
Bridle shiner
Carp
Chain pickerel
Common shiner
Creek chub
Fallfish
Golden shiner
Largemouth bass
Longnose dace
Madtom
Pumpkinseed
Rainbow trout
Redbreast sunfish
Smallmouth bass
Spotail shiner
White sucker
Yellow bullhead
Yellow perch

APPENDIX 9.1.2

MAMMALS OF THE PISCATAQUOG RIVER WATERSHED

Bat - Big Brown
Bat - Silver-Haired
Bear - Black
Beaver
Bobcat
Chipmunk - Eastern
Cottontail - New England
Coyote
Deer - White-tailed
Fisher
Fox - Gray
Fox - Red
Hare - Snowshoe
Mink
Mole - Hairy-tailed
Mole - Star-nose
Moose
Mouse - Deer
Mouse - House
Mouse - Meadow Jumping
Raccoon
Rat - Norway
Shrew - Masked
Shrew - Short-tailed
Skunk - Striped
Squirrel - Gray
Squirrel - Northern Flying
Squirrel - Southern Flying
Vole - Meadow
Vole - Southern Redbacked
Vole - Woodland
Weasel - Long-tailed
Weasel Short-tailed
Woodchuck

APPENDIX 9.1.3

BIRDS OF THE PISCATAQUOG RIVER WATERSHED

Alder Flycatcher
American Bald Eagle
American Black Duck
American Bittern
American Crow
American Redstart
American Robin
American Tree Sparrow
Bank Swallow
Barred Owl
Barn Swallow
Bay-breasted Warbler
Belted Kingfisher
Black-and-white Warbler
Blackburnian Warbler
Black-capped Chickadee
Blackpoll Warbler
Black-throated-Blue Warbler
Black-throated-Green Warbler
Blue Jay
Blue-gray Gratcatcher
Blue-winged Warbler
Bobolink
Brown Creeper
Brown Thrasher
Canada Warbler
Cape May Warbler
Cedar Waxwing
Chestnut-sided Warbler
Chimney Swift
Chipping Sparrow
Common Loon
Common Nighthawk
Common Redpoll
Common Yellowthroat
Cooper's Hawk
Dark-eyed Junco
Downy Woodpecker
Eastern Bluebird
Eastern Kingbird
Eastern Meadowlark
Eastern Screech Owl
Eastern Phoebe
Eastern Wood-Pewee
European Starling
Evening Grossbeak
Field Sparrow
Fox Sparrow
Geese spp.
Golden-crowned Kinglet
Gray Catbird
Gray-cheeked Thrush
Great Crested Flycatcher
Great Horned Owl
Hawks spp.
Hairy Woodpecker
Hermit Thrush
House Finch
House Wren
Indigo Bunting
Least Flycatcher
Lincoln's Sparrow
Louisiana Waterthrush
Magnolia Warbler
Marsh Wren
Nashville Warbler
Northern Cardinal
Northern Flicker
Northern Goshawk
Northern Mockingbird
Northern Parula
Northern Raven
Northern Saw-whet Owl
Northern Shrike
Northern Waterthrush
Olive-sided Flycatcher
Osprey
Ovenbird
Palm Warbler
Pied-billed Grebe
Pileated Woodpecker
Pine Grosbeak
Pine Warbler
Prairie Warbler
Purple Finch
Purple Martin
Red-breasted Nuthatch
Red-eyed Vireo
Red-shouldered Hawk
Red-winged Blackbird
Rose-breasted Grosbeak
Ruby-crowned Kinglet
Ruby-throated Hummingbird
Ruffed Grouse
Rufous-sided Towhee
Savannah Sparrow
Scarlet Tanager
Snow Bunting
Song Sparrow
Swainson's Thrush
Swamp Sparrow
Tennessee Warbler
Tree Swallow
Tufted Titmouse
Turkey
Veery
Warbling Vireo
Whip-poor-will
White-crowned Sparrow
White-throated Sparrow
White-winged Crossbill
Willow Flycatcher
Winter Wren
Wood Thrush
Yellow Warbler
Yellow-bellied Sapsucker
Yellow-rumped Warbler
Yellow-throated Vireo

APPENDIX 9.1.4

WILDFLOWERS OF THE PISCATAQUOG RIVER WATERSHED

Arrow Arum
Arrowwood
Avens
Bachelor's-Button
Beach Pea
Bedstraw ssp
Beechdrops
Beggar-Ticks
Birdfoot Trefoil
Black Snackroot
Black Swallowwort
Black-eyed Susan
Bladder Campion
Bloodroot
Blue Flag spp
Blue Vervain
Blue-Eyed Grass
Bluets
Boneset
Bouncing Bet
Brambles spp
Bristly Sarsaparilla
Brook Lobelia
Bull Thistle
Bunchberry
Butter & Eggs
Buttercup spp
Buttonbush
Canada Lily
Cardinal Flower
Celandine
Cheeses spp
Chickweed
Chokeberry
Chrysogonum
Cinquefoil
Clintonia
Clintonia (yellow)
Columbine
Common Burdock
Common Cattail
Common Evening Primrose
Common Morning-Glory
Common Ragweed
Common Skullcap
Common Smartweed
Common Speedwell
Common St. Johnswort
Comfrey
Cow Vetch
Creeping Bellflower
Crowned Vetch
Dame's Rocket
Dandelion
Day Lily
Dogbane
Dwarf Genseng
Elecampane
Everlasting Pea
False Hellebore
False Solomon's Seal
Field Mustard
Flat-Topped White Aster
Foamflower
Forget-Me-Not
Fringed Polygala
Galinsoga
Garden Loosestrife
Garden Phlox
Gill-over-the-Ground
Golden Alexanders
Golden Ragwort
Goldenrod spp
Goldthread
Grape Hyacinth
Greater Bladderwort
Groundnut
Habenaria spp
Hairy Honeysuckle
Hawkweed spp
Heal-All
Hedge Bindweed
Hepatica
Highbush Blueberry
Indian Cucumber Root
Indian pipe
Indian Tobacco
Jack-in-the-Pulpit
Jimsonweed
Labrador Tea
Ladies' Tresses spp
Lady's Thumb
Lance-leaved Coreopsis
Large-Flowered Bellwort
Leatherleaf
Lesser Stitchwort
Lowbush Blueberry
Maiden Pink
Maleberry
Mallow spp
Marsh Marigold
Marsh St. Johnswort
May-Apple
Meadowsweet
Milkweed spp
Mint spp
Moccasin-flower (pink/white)
Moneywort
Monkey-Flower
Moss Pink
Motherwort
Mullein
Musk Mallow
Mustards ssp
Nightshade (Common)
Northern Bush Honeysuckle
Northern Willow-Herb
Ox-Eye Daisy
Pale Laurel
Partridgeberry
Pasture Rose
Pearl Everlasting
Pickerel Weed
Pinesap
Pipsissewa
Pitcher Plant
Poison Hemlock
Pokeweed
Purple Aster
Purple Flowering Raspberry
Purple Fringed Orchid
Purple Loosestrife
Purslane Speedwell
Pussytoes
Pyrola spp
Pyrolas spp
Ragged Robin
Rattlesnake Plantain
Redosier Dogwood
Rhodora
Rose Pogonia

APPENDIX 9.1.4

WILDFLOWERS OF THE PISCATAQUOG RIVER WATERSHED

Roses spp
Rue-Anemone
Salsify
Sandwort
Shadbush
Sheep Laurel
Showy-Tick Trefoil
Silky Dogwood
Skunk Cabbage
Smartweed
Small Whorled Begonia
Solomon's Seal
Sow-Thistle
Spotted Joe-Pye Weed
Spotted Touch-Me-Not
Starflower
Steeplebush
Stinging Nettle
Strawberry spp
Striped Gentian
Sundew spp
Swamp Rose
Swamp Saxifrage
Swamp Honeysuckle
Sweet Joe-Pye Weed
Sweet Pepperbush
Tall Meadow Rue
Thimbleweed
Tickseed Sunflower
Trailing Arbutus
Trillium ssp
Trout Lily
Turtlehead
Twisted-stalk
Violet spp
Virgin's Bower
Water Hemlock
Water Horehound
Water Parsnip
Watercress
Waterlilies spp
Water-Plantain
White Baneberry
White Lettuce
White Wood Aster
Whorled Loosestrife
Whorled Wood Aster
Wild Carrot
Wild Lily-of-the-Valley
Wild Matter
Wild Oats
Wild Pink
Wild Sarsaparilla
Wild Senna
Wintergreen
Wood Lily
Wood Sorrel
Yarrow
Yellow Corydalis
Yellow Lady's slipper
Yellow Loosestrife
Yellow Water Lily

APPENDIX 9.2

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS*

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
1. Introduction								
2. Water Quality	**Clean Water Act: 1972 (33 USC 1251 - 1376)** Restore and maintain the chemical, biological and physical integrity of U.S. waters. **Wild and Scenic Rivers Act (16 USC Chapter 28)** By executive order, all federal agencies must make all reasonable efforts to avoid negative impacts to all rivers designated as Wild and Scenic and those listed in the Nationwide Rivers Inventory as potential Wild and Scenic Rivers.	**RSA 485-A** Water quality shall be maintained at class A or B standards. **RSA 483** Water quality shall be maintained at Class A or B for rivers designated as "natural" and Class B for rivers designated as "rural", "rural-community" or "community". **RSA 482-A** Permit from DES Wetlands Bureau required for excavation, dredge, fill or construction in or on any banks, flat, marsh or swamp in and adjacent to any waters of the state. **Env-Wt 100-800** NHDES Wetlands rules **Env-Ws 410:** Ground water protection rules **Env-Ws 430:** Surface water quality standards **Env-Ws 437:** Protection of surface waters from degradation by pollutant discharge.	**SDR 5..2** Character of Land **SDR-5.3.2** Onsite Sewage & Water Problems **SDR-5.3.0.R** Drainage **SDR-5.4.1b** Waterbodies & Watercourses **SPO 10.2, 4,5,6** Shoreland Protec. Ord.	**ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.4** Flood Plain District **ZO - Article 2-A.5** Aquifer Protection District **ZO - Article 2-A.6** Shorelands District **ZO - Article 3.4** Sewage Disposal	**ZO, Article IV, L** **ZO, Article V, H** **Water Resources Mangt. Plan -1990** **Wellhead Protection Plan - 1996**	**ZO 5.07** Planned Develp. **ZO 5.13** Cluster Develp. **ZO 5.16** On-Lot Sewage Disposal **ZO 13.08** RMH- Utilities **CO 52.004** Unlawful Discharges **CO 52.006** Private Sewage **CO 52.024** Storm Drains **CO 52.026** Prohibited Discharges **CO 52.134** Separate Systems **CO 96.05** Pollute Park Waters **CO 130.56** Littering in Bodies of Water **CO 150.082** Water & Sewer Systems **Water Resources Mgt. Plan -1990**	**ZO 204.7** Ground Water Conserv. District **ZO 204.6** Watershed Conserv. District **Water Resources Mgt. Plan -1989**	**NRSPRR** Non-Residential Site Plan Review Regulations **HO** Health Ordinance **ZO 28** Wetlands Zone **ZO 29** Aquifer Protection Ord. **Water Resources Mgt. Plan -1990**
3. Instream Flow	**Federal Power Act (16 USC 791)** Every hydroelectric project on a navigable stream requires a Federal Energy Regulatory Commission permit. **Clean Water Act (33 USC 404)** Permits for dams may be conditioned to assure sufficient flows and restrict withdrawals for the protection of fish and wildlife. **Wild and Scenic Rivers Act (16 USC Chapter 28)** By executive order, all federal agencies must make all reasonable efforts to avoid negative impacts to all rivers designated as Wild and Scenic and those listed in the Nationwide Rivers Inventory as potential Wild and Scenic Rivers.	**RSA 483** No interbasin transfers are allowed. A protected instream flow level shall be established for each designated river. No new dams are allowed on rivers designated as "natural", "rural" or "rural-community" rivers. **Env-Wr 700** Water uses over 20,000 gpd must be registered and report usage.	**SPO 10.6** Shoreland Protec. Ord.	**ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.6** Shorelands District	**ZO, Article V, H** **Water Resources Mangt. Plan -1990** **Wellhead Protection Plan - 1996** **Subdivision & Site Plan Regulations Section 5, - 5.05**		**ZO 204.7** Ground Water Conserv. District **ZO 204.6** Watershed Conserv. District	

*** For Information on the Town of Lyndeborough, contact the Selectmen's Office or Lyndeborough Conservation Commission**

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
4. Streambank Stabilization	**Clean Water Act (33 USC 1344)** Establishes permit system for dredge and fill activities in navigable waterways. **Wild and Scenic Rivers Act (16 USC Chapter 28)** By executive order, all federal agencies must make all reasonable efforts to avoid negative impacts to all rivers designated as Wild and Scenic and those listed in the Nationwide Rivers Inventory as potential Wild and Scenic Rivers.	**RSA 485-A:17** A permit is required for any terrain alteration in or on border of surface waters or which will alter natural runoff. **RSA 482-A** Permit from DES Wetlands Bureau required for excavation, dredge, fill or construction in or on any banks, flat, marsh or swamp in and adjacent to any waters of the state. **RSA 483:9** No channel alteration activities shall be allowed in rivers designated as "natural". DES shall encourage the use of native vegetation to stabilize streambanks of designated "rural", "rural-community" and "community" rivers. **Env-Wt-100-800** DES Wetlands rules	**SDR VI., VII** Subdivision Regs. **SPO 10.6,9** Shoreland Protec. Ord. **WCD A,D,F** Wetlands Conserv. District	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.3** Steep Slopes District **ZO - Article 2-A.4** Flood Plain District **FHBC** Flood Hazard Building Code **ZO, Article V, V**	**ZO, Article IV, O** **Water Resources Mangt. Plan -1990** **Wellhead Protection Plan - 1996** **Subdivision Reg.** Sec. 7.13	**ZO Article 14** Floodway District **State of NH** Comp. Shoreland Protection Act	**State of NH** Comp. Shoreland Protection Act	
4-A. Sedimentation & Erosion Control	**Soil Conservation Act (16 USC 590a)** Directs Natural Resource Conservation Service to prevent soil erosion through local regulations and watershed improvement projects. **Clean Water Act (33 USC 1329)** relates to regulation of nonpoint source pollution.	**RSA 485-A:17** Alteration of terrain permit, required for major earth disturbance. **Env-Ws 415:** Rules governing alteration of terrain (site specific) permits.	**Subdivision Regs.** **SDR 5.4.2 S** Soil Preservation **SDR 5.5.4g** Design of Bridges **SDR5.54p** Shoulders/Seeding **SDR 5.6** Storm Drainage **SDR 5.7** Erosion/Sed. Ctrl. **SDR 5.10 LOTSA** Lot Size **SDR 5.10.3** Shoreland Set back **Shoreland Protec. Ordinance** **SPO 10.6 & 10.9** SPO 11 **Wetlands Conserv. District** **WCD A,C,D,F**	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.3** Steep Slopes District **ZO - Article 2-A.4** Flood Plain District **ZO - Article 2-A.6** Shorelands District **FHBC** Flood Hazard Building Code Subdivision Regs. Site Plan Regs.	**ZO, Article IV, O** **ZO, Article V, H6** **Subdivision Reg.** Sec. 7.00; 7.02, 7.06,7.13	**ZO Article 14** Floodway District **State of NH** Comp. Shoreland Protection Act	**State of NH** Comp. Shoreland Protection Act	**ZO** Zoning Ordinance **EPO** Earth Products Ordinance **NRSPRR** Non-Residential Site Plan Review Regulations
4 -B. Timber Harvesting		**RSA 227-J:9** No more than 50% of the basal area of trees shall be cut, leaving a well distributed stand of healthy growing trees within 150 feet of any fourth order or higher stream, or within 50 feet of any other stream which normally flows throughout the year, unless prior written consent of the director of the Division of Forest and Lands or the director's agent is obtained and all other state and local permits have been secured.	**SPO 10.7** Shoreland Protec. Ord. **WCD D.1** Wetlands Conserv. District	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.3** Steep Slopes District **ZO - Article 2-A.6** Shorelands District	**ZO, Article V,** H-5C (permitted uses)	**State of NH** Comp. Shoreland Protection Act	**ZO 204.6** Watershed Conserv. District **State of NH** Comp. Shoreland Protection Act	**ZO 28.6.1** Best Mgt. Practices

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
4-C. Site Development Roads & Bridges	**Rivers & Harbors Act of 1899: (33 USC 401)** **Clean Water Act (33 USC 1344)** Need federal permit to construct dams, bridges, piers, etc, in any navigable water. **Wild and Scenic Rivers Act (16 USC Chapter 28)** By executive order, all federal agencies must make all reasonable efforts to avoid negative impacts to all rivers designated as Wild and Scenic and those listed in the Nationwide Rivers Inventory as potential Wild and Scenic Rivers.	**RSA 485-A:17** Best Management Practices required in timber harvesting. **RSA 482-A:3V** Forest Management limited to minimum impact activities. **Res 5401.02(a)** A permit is required to float timber on surface waters of the state. **RSA 482-A:3** Construction of structures in or adjacent to wetlands or surface water require permit from DES Wetlands Bureau. **Env-Wt 100-800** DES Wetlands rules. **RSA 230; RSA 231** Layout, construction and maintenance of state highways and city, town and village district highways. **RSA 47:17; RSA 48-B** Sidewalks, parking and use of public ways.	**Scenic Roads Ord.** **WCD - D,E** Wetlands Conserv. District **ZO Sect. #6** Zoning Ordin. **SDR 5.3.4, 5.4.1** Subdivision Regs. **SDR 5.72** Subdivision Regs.	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.6** Shorelands District **FHBC** Flood Hazard Building Code Subdivision Regs. Site Plan Regs.	**ZO, Article V, H 5g,h,i (permitted uses)** **Subdivision Reg.** Sec. 7.00, 7.01, 7.02	**ZO Article 14** Floodway District **CO 97.30** Permit for Street Disturbance	**ZO 204.6** Watershed Conserv. District **State of NH** Comp. Shoreland Protection Act	**ZO 29.8** Aquifer Protection Zone - Road Salt
4-D. Site Development Buildings, Septic & Landscaping	**Clean Water Act (33 USC 1345)** Relates to disposal or use of sewage sludge	**RSA 482-A:3** Construction of structures in or adjacent to wetlands or surface water require permit from DES Wetlands Bureau. **Env-Wt 100-800** DES Wetlands rules. **RSA 485 A:29** Permit is required prior to system construction. Inspection required before system covered or used. **Env-Ws 1000** Individual sewage disposal system design rules. **Env-Ws 700** Sewerage and waste treatment system design standards. **RSA 485-A** Submission and approval of plans and specifications for septic systems. **Env-Ws-1008.03** Sewage disposal systems shall be at least 75 feet from surface water. Locate septic system no closer than 125 feet from wetlands or water course. **Env-Ws 800** Regulations for removal transportation, and disposal of septage and sludge.	**SDR 5.3.4** Subdivision Regs. **SDR 5.4.1** Subdivision Regs **SDR 5.7.2** Subdivision Regs **WCD 5.E** Wetlands Conserv. District **SPO 10.5, 10.8, 10.13(a)** Shoreland Protec. Ord. **1996 Town Warrant Article** Prohibits Sludge Use	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.3** Steep Slopes District **ZO - Article 2-A.4** Flood Plain District **ZO - Article 2-A.5** Aquifer Protection District **ZO - Article 2-A.6** Shorelands District **ZO - Article 3.4** Sewage Disposal **FHBC** Flood Hazard Building Code	**ZO, Article IV, G,N,O** **ZO, Article V, H** **Subdivision Reg. Sec. 5.00 - 5.05**	**ZO 5.07** Planned Develp. **ZO 5.13** Cluster Develp. **ZO 5.16** On-Lot Sewage Disposal **ZO 13.08** RMH- Utilities **CO 52.006** Private Sewage **CO 52.024** Storm Drains **CO 52.134** Separate Systems **CO 150.082** Water & Sewer Systems **State of NH** Comp. Shoreland Protection Act	ZO 204.6 Watershed Conserv. District **State of NH** Comp. Shoreland Protection Act	**ZO 29.7.2** Aquifer Protection Zone - Impervious Cover requir. **ZO 31.9** Aquifer Protection Zone, Floodway **ZO 31.10** Aquifer Protection Zone, Flood Hazard **SR** Subdivision Regs. 100 yr. Flood Info. Septic Systems

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
4-E. Agricultural Practices along the river corridor	**Soil Conservation Act (16 USC 590a)** Directs Natural Resource Conservation Service to prevent soil erosion through local regulations and watershed improvement projects. **Clean Water Act (33 USC 1342)** Requires NPDES permit for point discharge. **Clean Water Act (33 USC 1329)** Relates to regulation of nonpoint source pollution.	**RSA 485-A** Water pollution and waste disposal regulations. **RSA 483-B** Comprehensive Shoreland Protection Act: Minimum setbacks for certain rivers. **RSA 430** All pesticide applications must comply with rules adopted by Pesticides Control Board, NH Dept. of Agriculture. **RSA 483** Setback requirements for certain fertilizers. **RSA 483-B** Comprehensive Shoreland Protection Act: Minimum setbacks for certain rivers. (Agricultural use is exempt). **Pes-1001** Restrictions on the use of pesticides to protect ground and surface waters. **RSA 431:33-35** Manure and chemical fertilizer handling must be done in accordance with NH Dept. of Agriculture Best Management Practices. **RSA 483-B** Comprehensive Shoreland Protection Act: Minimum setbacks for certain rivers. (Agricultural use is exempt)	**SPO 10.5 & 10.17** Shoreland Protec. Ord. **APO** Aquifer Protec. Ordin. **ZO** Zoning Ordinance Section-3 Agri. Use	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.5** Aquifer Protection District **ZO - Article 2-A.6** Shorelands District **ZO - Article V-A** Farmland Preservation	**ZO, Article V, H5B (permitted uses)**	**State of NH** Comp. Shoreland Protection Act	**ZO 204.6 Section D-1A** Watershed Conserv. District (Permitted Uses)	**ZO 28.6.2** Zoning Ordinance Use of Fertilizers, Pesticides and herbicides
4-F. Industrial & Municipal Practices along the river corridor	**Clean Water Act (33 USC 1342)** Establishes regulation of municipal and industrial stormwater discharges	**RSA 485-C:11** Outdoor storage of road deicing chemicals is prohibited in designated wellhead protection areas. **RSA 485-C:12** Prohibits certain uses within any wellhead protection area classified as GAA, including siting or operating a hazardous waste disposal facility or landfill, snow dump, junk or salvage yard or wastewater or septage lagoon, outdoor storage of road salt or other deicing chemicals in bulk. **RSA 485-A:13, I(a)** Prohibits discharging of wastes into surface waters without a permit **RSA 485-C:12** Snow dumps are prohibited in designated wellhead protection areas. **RSA 485-C:12** Prohibits certain uses within any wellhead protection area classified as GAA, including siting or operating a snow dump.	**ZBA Approval** Industrial uses by variance **SPO 10.4, 10.5, 10.10,10.11 (3) a,b** Shoreland Protec. Ord. Storage of Petroleum **SPO 10.5,** Shoreland Protec. Ord. Storage of Road Salt & Disposal of Snow **SPO 20.5.9** Shoreland Protec. Ord. Location of Landfills	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District ZO - Article 2-A.5 Aquifer Protection District **ZO - Article 2-A.6** Shorelands District **FHBC** Flood Hazard Building Code	**ZO, Article V, H7** (exemptions) **Subdivision & Site Plan Review & Regulations 5.00, sub-section 5.05**	**State of NH** Comp. Shoreland Protection Act **Zoning Regulations** (Permitted Uses)	**ZO 204.6** Watershed Conserv. District	**ZO 29.8** Zoning Ordinance Industrial Discharges **ZO 29.11** Zoning Ordinance Gravel Removal in Aquifer Protection Zone **EPO** Earth Products Ordinance

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
4-F. Industrial & Municipal Practices along the river corridor		RSA 485-A:17 Alteration of terrain permit requirements include practices to mitigate the effects of urban runoff. RSA 483 No new solid waste landfills within 1/4 mile of designated "natural" rivers or within 500 year flood plain of "rural", "rural-community" or "community" rivers. No expansion of existing landfills within 500 year flood plain of designated "natural" rivers. Env-Wm 1901 Solid Waste Management Rules. RSA 485-A:151 Litter (garbage, scrap metal, old cars, trees, etc.) shall not be disposed of in, on the ice over, or on the banks of surface waters. RSA 227-J:10 No disposal of slash & mill waste within 50 feet of any navigable river, within 25 feet of any stream which will float a canoe at normal water level or in any stream which normally flows throughout the year. RSA 483-B Comprehensive Shoreland Protection Act: Minimum setbacks for certain rivers.			**Wellhead Protec. Plan- 1996** **Water Resources Mgt. Plan -1990**	**Water Resources Mgt. Plan -1990**	**Water Resources Mgt. Plan -1989**	**Water Resources Mgt. Plan -1990**
5. Recreation Opportunities	**Americans with Disabilities Act (42 USC Chapter 126)**	**RSA 233-A** Statewide Public Access Program. **RSA 270:73-74** Restricts the operation of skicraft. **RSA 270-D:2** General rules for vessels operating on water. **RSA 270:121** Specific restriction on the Piscataquog River. **RSA 482-A** Wetlands permit required for dock construction. **RSA 483:9** No motorized watercraft on designated "natural" rivers. On other designated rivers, headway speed only within 150 feet of shore. **Env-Wt 100-800:** DES Wetlands rules. **Saf-C-402** Restrictions on specific water bodies. **Saf-C-404** Boating rules. **Saf-C-407** Rafting rules. **Saf-C-413** Water event and slalom course permits. **RSA 215-A** Off Highway Recreation Vehicle regulations. **RSA 275-C** Governor's Commission on Disabilities	**Easements** SPNHF - for Public Access **Town Access** Bartlett Hill Bridge Pleasant Pond Rd. Bridge Deering Dam Outlet	**ZO - Article 7.13** Commercial Recreational Facilities	**ZO, Article V, H5e (permitted uses)**	**City Master Plan 1993** Section F - Parks & Recreation **Manchester's Riverfront -1980** Planning and Design for the Merrimack & Piscataquog Rivers **Piscataquog River Park Master Plan 1998**	**ZO 204.6 Section D-1D** Watershed Conserv. District (Recreational Uses) **ZO 204.6 Section D-1E** Watershed Conserv. District (Conservation Areas & Nature Trails)	

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
6. Natural Resources	**Dept. of Transportation Act of 1966: (49 USC 1651 - 59, Section 4 (f))** No U.S. Dept. Transportation projects are allowed on public land important for wildlife, recreation area or wildlife and waterfowl refuge of national, state or local significance or historic properties unless there is no prudent and feasible alternative and there has been all possible planning to minimize harm. **Fish and Wildlife Coordination Act: (16 USC 661 -661c)** Whenever a river is altered by a water resource development project, steps should be taken to conserve wildlife resources. **Endangered Species Act (16 USC 1531-43)**	**RSA 207:19-21** Angling and restrictions of fishing. **RSA 208** Game animals. **RSA 209** Game birds and pigeons. **RSA 210** Fur-bearing animals. **RSA 212-B** Nongame Species Management Act. **RSA 211** Fish, shellfish, lobsters and crabs. **RSA 212** Propagation of fish and game. **RSA 213** Atlantic marine fisheries including salmon. **RSA 212:A** Endangered Species Conservation Act. **RSA 217-A** NH Native Plant Protection Act . **Res - N 100-300** Administrative rules governing plant protection.	See Nomination Papers Piscataquog & Contoocook Rivers **WCD- Section 5** Wetlands Consv. District - Riparian Buffer Zone **APO** Aquifer Protec. Ordin. **NFDO** National Floodplain Develp. Ordin.	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.4** Shorelands District **ZO - Article 8** Definitions Ag. Land, Bogs, Buffer, Forestry, Marshes, Swamps	**ZO, Article V, H5d (permitted uses)**	**City Master Plan 1993** Section - I Natural Resources	**ZO 204.6** **Section D & C** Watershed Conserv. District	
7. Scenic Resources		**RSA 483-B** Comprehensive Shoreland Protection Act: Minimum setbacks for certain rivers. **RSA 482-A:26** No structure extending beyond the shoreland of public water may be used as a dwelling. **RSA 485-A:39** Waterfront property sale and site assessment study. **RSA 674:32** Manufactured housing can be regulated but not excluded from a municipality. **RSA 236:111-129** Junk yard regulations. **RSA 236:90-110** Requirements for control of junkyards and automotive recycling yards. **RSA 230; RSA 231** Layout, construction and maintenance of state highways and city, town and village district highways. **RSA 47:17; RSA 48-B** Sidewalks, parking and use of public ways. **RSA 236: 69-89** Regulation of outdoor advertising and signs.	**SRO** Scenic Roads Ord. **Current Use** **SPO** Shoreland Protec. Ord. **WCD - 5.D.2** Wetlands Consv. District **APO** Aquifer Protec. Ordin. **NFDO** National Floodplain Develp. Ordin. **SDR 2K** Subdivision Regs. Signage **SDR** Subdivision Regs. General	**Zoning Ordinance** **ZO - Article 2-A.2** Wetlands Conserv. District **ZO - Article 2-A.3** Steep Slopes District **ZO - Article 2-A.6** Shorelands District **ZO - Article 3** General Provisions 3.3 Ruined Buildings 3.5 Obnoxious Uses 3.6 Height Restrictions 3.7 No Junk Yards **ZO - Article 4** Signage Regs.	**RSA 231.57** **ZO, Article V, H, Article IV, B** Scenic Appearance **ZO, Article V, H, Article IV, B** Open Space **ZO, Article IV, F,** Signage	**ZO 5.07** Planned Develp. **ZO 5.13** Cluster Develp **ZO Article 14** Floodway District Prohibits Mobile Homes	**ZO Article IV, 401** Zoning Ordinance Cluster Residential Development **ZO Article III, 318** Zoning Ordinance Signage **NFIP** National Flood Insurance Program (Building Regulations)	**ZO 27** Zoning Ordinance Cluster Development **ZO** Zoning Ordinance Signage

PISCATAQUOG RIVER MANAGEMENT PLAN • MATRIX OF EXISTING REGULATIONS

TOPIC	FEDERAL	STATE	DEERING	FRANCESTOWN	GOFFSTOWN	MANCHESTER	NEW BOSTON	WEARE
8. Cultural Resources	**National Register of Historic Places (16 USC 470a)** **Dept. of Transportation Act of 1966: (49 USC 1651 - 59, Section 4 (f))** No U.S. Dept. Transportation projects are allowed on public land important for wildlife, recreation area or wildlife and waterfowl refuge of national, state or local significance or historic properties unless there is no prudent and feasible alternative and there has been all possible planning to minimize harm. **National Natural Landmarks (16 USC section 463)** In some instances, there may be National Natural Landmarks on some rivers listed on the Nationwide Rivers Inventory.	**RSA 227-C** Governs identification and protection of state historic resources and properties.	**Town Master Plan** RSA 674.16,17 **See Nomination Papers** Piscataquog & Contoocook Rivers **Town Historic Site** Stone Bridge on Old Rt. 149			**City Master Plan 1993** Section - H Historic Resources Historic Comm. Ordinance		
9. Public Awareness	(See Other Sections in the Attached Appendices)							

APPENDIX 9.3

BIBLIOGRAPHY

COMMUNITY, STATE AND FEDERAL REFERENCES

Deering:

- *Master Plan for the Town of Deering, NH. 1990.*
- *Zoning Ordinance for the Town of Deering, NH. Amended 1997.*
- *Subdivision Regulations for the Town of Deering, NH. 1994.*
- *Water Resource Management and Protection Plan, Town of Deering, NH.* Prepared by Edward Cobbett, Chairman Deering Conservation Commission.

Francestown:

- *Master Plan for the Town of Francestown, NH, Adopted 1995, Amended 1/23/96 & 10/15/96.*
- *Zoning Ordinance for the Town of Francestown, NH Amended 1998.*

Goffstown:

- *Master Plan for the Town of Goffstown, NH. 1997.*
- *Wellhead Protection Program, Goffstown Village Water Precinct.* Prepared by the Southern New Hampshire Planning Commission. June 1996.
- *Water Resource Management and Protection Plan, Town of Goffstown, NH.* Prepared by the Southern New Hampshire Planning Commission. January 1990.

Manchester:

- *Master Plan - Manchester, New Hampshire.* Prepared by the Manchester City Planning Board. Adopted November 10, 1993.
- *Zoning Ordinance for the City of Manchester, NH - 1965 - Amended 1997*
- *City of Manchester Code of Ordinances. 1997*
- *Water Resource Management and Protection Plan, City of Manchester, NH.* Prepared by the Southern New Hampshire Planning Commission. June 1990.
- *Manchester Parks & Recreation 1992 Recovery Action Plan.* Prepared by City of Manchester Parks and Recreation Commission. January 1992.
- *Manchester's Riverfronts. Planning and Design for Recreation on the Merrimack and Piscataquog Rivers.* Prepared by Conway School of Landscape Design, Inc. June 1980.
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- *Manchester Historic Resources Survey.* Prepared for City of Manchester Planning Board by Oz/Trementozzi, Saucier & Flynn and Lisa Mausolf. September 1991.

New Boston:

- *Master Plan for the Town of New Boston, NH. Revised 1997.*
- *Water Resource Management and Protection Plan, Town of New Boston, NH.* Prepared by the Southern New Hampshire Planning Commission. January 1989.

Weare:

- *Master Plan for the Town of Weare, NH. 1994.*
- *Water Resource Management and Protection Plan, Town of Weare, NH.* Prepared by the Southern New Hampshire Planning Commission. January 1990.

Private Organizations:

- *Piscataquog River Nomination - New Hampshire Rivers Management & Protection Program.* Prepared by the Piscataquog Watershed Association - P.O. Box 362, New Boston, NH 03070, 1992.

State:

- *The Critical Edge: Shoreland Protection Reference Guide.* Prepared by New Hampshire Department of Environmental Services, Public Information Office (603-271-2975)
- *A Bikeway and Pedestrian Master Plan for the Southern New Hampshire Planning Commission Region.* Prepared by the Southern New Hampshire Planning Commission. July 1994.
- *Merrimack River Management Plan for Hooksett, Manchester and Bedford.* Prepared by the Southern New Hampshire Planning Commission. October 1990.
- *Statewide Comprehensive Outdoor Recreation Plan (SCORP), New Hampshire Outdoors 1994-1999.* Prepared by the New Hampshire Office of State Planning. July 1994.
- *A Management Plan for the South Branch Piscataquog River.* Prepared by the Southern New Hampshire Planning Commission. March 1982.

Federal:

- *The New Hampshire Heritage Trail Development Handbook.* Prepared by the River and Trail Conservation Assistance Program, National Parks Service, North Atlantic Region Office of Planning and Design. September 1989.
- *Strategic Plan for the Restoration of Atlantic Salmon to the Merrimack River - 1990 through 2004.* Prepared by the Merrimack River Policy and Technical Committees - U.S. Fish & Wildlife Service, April 1990

APPENDIX 9.4

SOURCE LIST OF

COMMUNITY, STATE, FEDERAL AND PRIVATE ORGANIZATIONS

MUNICIPAL OFFICES

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Goffstown:

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Fax: 603-529-4554
Web site: www.whoweb.com/Weare web/

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Federal Energy Regulatory Commission
888 First Street, NE
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National Park Service
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- Division of Forests and Lands
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- NH Natural Heritage Inventory
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- Division of Parks
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NH Land Conservation Investment Program
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Society for the Protection of NH Forests
54 Portsmouth Street
Concord, NH 03301
(603) 224-9945

Merrimack River Watershed Council
P.O. Box 1377
56 Island Street
Lawrence, MA 01842-2577
(978) 681-5777

New Hampshire Rivers Council
54 Portsmouth Street
Concord, NH 03301
(603) 228-6472

Friends of the Earth
1025 Vermont Ave.,
NW, 3rd Floor
Washington, D.C. 20005
(202) 783-7400

The River Management Society
316 Daly Ave.
Missoula, MT 59801-4338
(406) 549-0514
email: arms.igc.apc.org

National Wildlife Federation
1400 16th Street NW
Washington, DC 20036
(202) 797-6800

Sierra Club
85 Second Street
San Francisco, CA 94105
(415) 977-5500

Trout Unlimited
1500 Wilson Boulevard,
Suite 310
Arlington, VA 22209
(703) 522-0200

The Wildlife Society
5410 Grosvenor Lane
Bethesda, MD 20814-2197
(301) 897-9770

The Nature Conservancy
New Hampshire Field Office
21/2 Beacon Street, Suite 6
Concord, NH 03301
(603) 224-5853

Appalachian Mountain Club
P.O. Box 298
Gorham, NH 03581
(603) 466-2721

LAND TRUSTS

Piscataquog Watershed Association
P.O. Box 362
New Boston, NH 03070
c/o Gordon Russell
(603) 529-7457

Society for the Protection of NH Forests
54 Portsmouth Street
Concord, NH 03301
(603) 224-9945

Harris Center for Conservation Education
341 King's Highway
Hancock, NH 03449
(603) 525-3394

New England Forestry Foundation
283 Old Dunstable Road
P.O. Box 1099
Groton, MA 01450-3099
(508) 448-8380

New England Wildflower Society
Garden in the Woods
Hemenway Road
Framingham, MA 01701
(508) 877-7630

Trust for Public Lands
33 Union Street, 4th Floor
Boston, MA 02108
(617) 367-6200

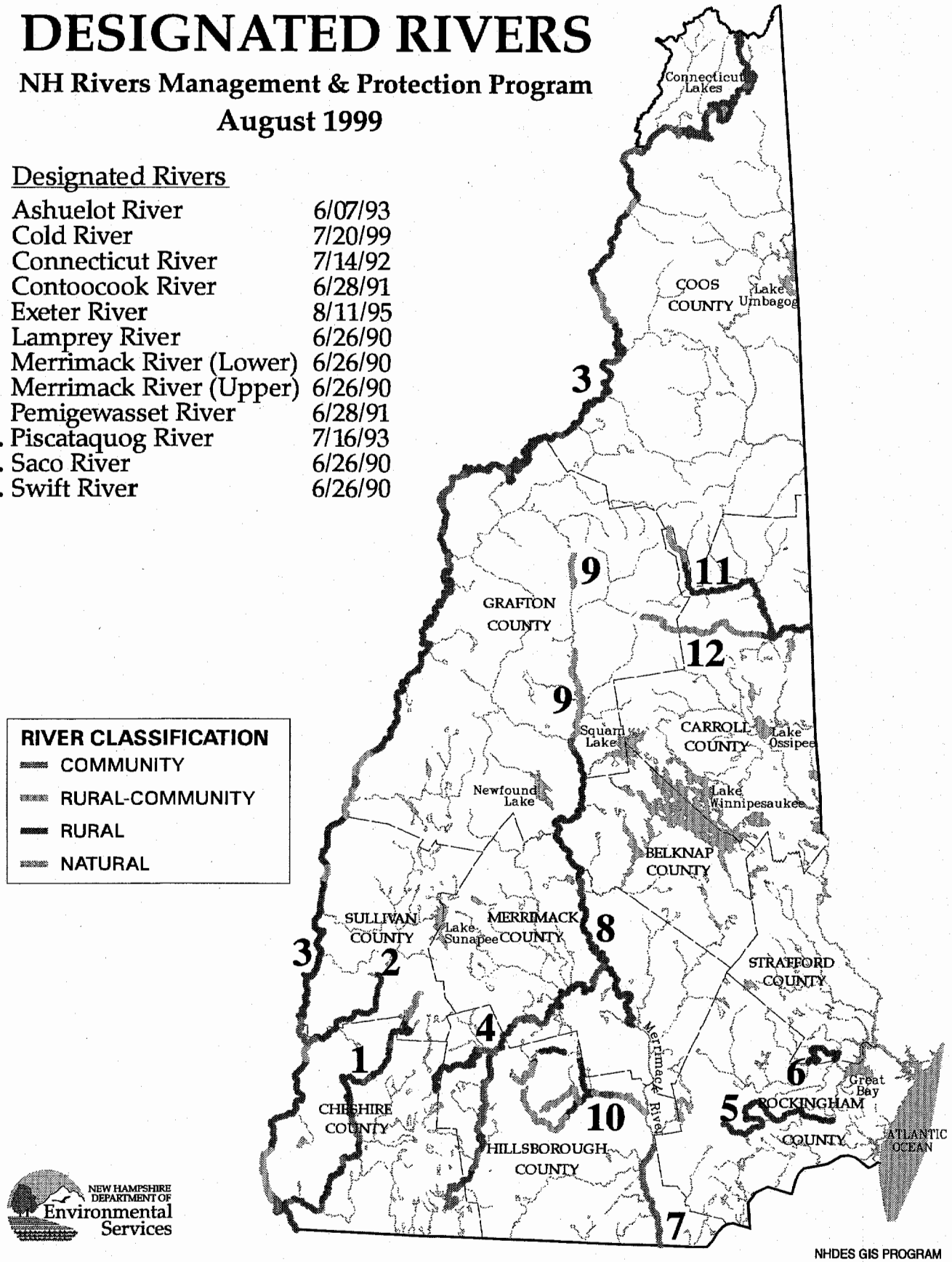
Upper Valley Land Trust
19 Buck Road
Hanover, NH 03755
(603) 643-6626

DESIGNATED RIVERS

NH Rivers Management & Protection Program
August 1999

Designated Rivers

1.	Ashuelot River	6/07/93
2.	Cold River	7/20/99
3.	Connecticut River	7/14/92
4.	Contoocook River	6/28/91
5.	Exeter River	8/11/95
6.	Lamprey River	6/26/90
7.	Merrimack River (Lower)	6/26/90
8.	Merrimack River (Upper)	6/26/90
9.	Pemigewasset River	6/28/91
10.	Piscataquog River	7/16/93
11.	Saco River	6/26/90
12.	Swift River	6/26/90



For more information on the NH Rivers Management and Protection Program, visit:
http://www.des.state.nh.us/rivers